



EPD & GREEN BUILDING



WE HAVE SUBJECTED OUR PRODUCTS EUROBATEX AND EUROBATEX HF TO A LIFE CYCLE ASSESSMENT (LCA)



WE CAN NOW OFFER THE MARKET SUSTAINABLE PRODUCTS CERTIFIED WITH AN ENVIRONMENTAL PRODUCT DECLARATION (EPD)

UNION FOAM AND SUSTAINALIBITY

*“Our biggest challenge in this new century is to take an idea that seems abstract, sustainable development, and turn it into a reality for all the world’s people”
(Kofi Annan).*



With a view to sustainable growth, Union Foam considers it fundamental to correctly assess the environmental impacts of their products throughout their entire life cycle, in order to be able to offer building solutions that fully respect the environment, recognizing sustainability as an ever increasing competitive factor.

Reducing energy waste and using materials that have less impact on the environment will safeguard the well-being of people and contribute to the balance of the external environment.

To ensure this, the company has embraced an eco-friendly philosophy by adopting research and development procedures that guarantee environmental responsibility, using high quality and certified raw materials.

Union Foam is committed to producing reliable products that last over time and provide excellent performance.

Ours is a firm commitment to environmental issues; we manage our production process with great attention and with a sustainable logic that minimizes impacts and reduces the use of resources and raw materials.

Our mission is to present the market with high performance and environmentally friendly products by initiating a measurable and firm path to sustainability.

The EUROBATEX and EUROBATEX HF products now have the EPD Italy certification

The company has chosen to certify itself through the Italian Program Operator EPD Italy, which is globally recognised and has the following advantages:

- Recognition and international visibility of the environmental performance of products
- Operator recognised by Accredia
- Reference for contracting authorities and designers.



THE EPD CERTIFICATION

The Environmental Product Declaration is a document, required by the Green Public Procurement (GPP), that objectively communicates transparent and comparable information about the environmental impacts of a product or a service; all in accordance with the international standard ISO 14025.

It is a public document, available to everyone, which highlights Union Foam's commitment to the transparency of their data as regards the energy efficiency of processes:

- it is based on the evaluation of data from the Life Cycle Assessment(LCA), verified independently, of the analysis of the life cycle inventory (LCI) and, if necessary, of further environmental information;
- the EPD certification is **managed and published by independent Program Operators** that vary depending on the country of publication or to the company market and product sector.

An EPD certification allows for the preparation and presentation of a company's product according to different environmental indicators

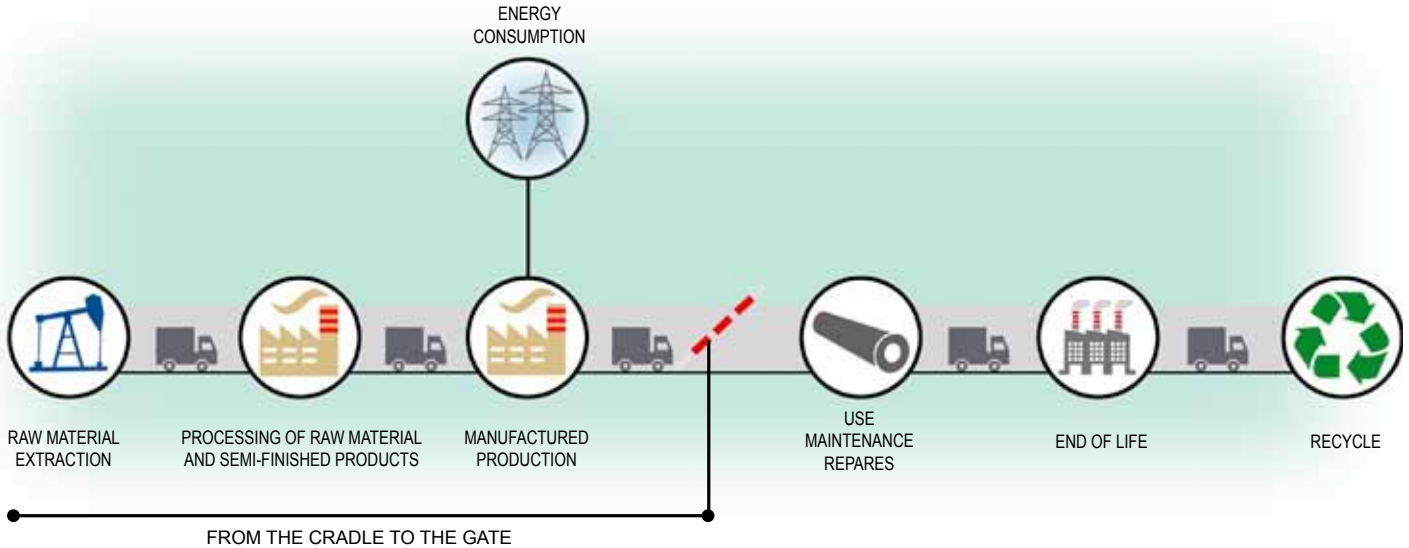
The aim of this certification is not to compare products of the same category or whether they reach certain environmental targets, but can offer the necessary knowledge to:

- Reduce the environmental impacts of the product
- Reduce management and production costs
- Promote the use of technology and eco-compatible materials
- Define company strategies, also in terms of product design and/or new and more sustainable processes
- To increase the company's visibility thanks to the product's labelling, which is a powerful communication and marketing tool
- Contribute to obtaining environmental certifications

Thanks to the LCA study, aimed to achieve the Environmental Product Declaration, a dual advantage can be obtained:

- Internally: the mapped production process reveals the critical points from an energy and environmental point of view, in order to indicate where they are located and optimise them.
- Externally: obtaining the EPD Italy label is a way to gain prestige and underline, with a declaration certified by an independent third party, a solid commitment to the environment. With this certification it is possible to communicate the results of the study in a clear and transparent way to the public and other stakeholders in the supply chain such as Commercial Partners and Public Authorities.

EPD RESULTS



OBJECT OF THE STUDY:

1 m³ of elastomeric foam material for thermal insulation, including all products, in tubes and sheets, of all thicknesses.

SYSTEM BOUNDARIES:

“From the cradle to the gate” approach, studying all the impacts connected to the supply of the raw materials and the production process, up to the sale of the final product.



EPD RESULTS

ENERGY BALANCE (1 m³ of material):

Thanks to the installation of the **EUROBATEX** and **EUROBATEX HF** product range, it is possible to save approximately 40.000 MJ per year for heating water in a home. Considering that the average life of an installation is 25 years, the total saving amounts to about 1.000.000 di MJ.

We calculated that the **energy impact for the production of products EUROBATEX and EUROBATEX HF** is equal approximately to 5.000 MJ. This means that the energy impact is **zeroed after about 45 days from the installation of EUROBATEX and EUROBATEX HF products.**



Considering that the average energy consumption of an Italian family is approximately 27.000 MJ, the energy benefit obtained thanks to the installation of **EUROBATEX** and **EUROBATEX HF** products is equal to the thermal energy consumption of an average Italian family in 40 years.

CO₂ EMISSIONS (1 m³ of material):



The overall benefit obtained thanks to the installation of **EUROBATEX** and **EUROBATEX HF** products, over the course of 25 years, in terms of emissions of CO₂ is approximately 60.000 kg CO₂, which corresponds to the emissions of a petrol car that travels around the Earth's circumference 13 times.

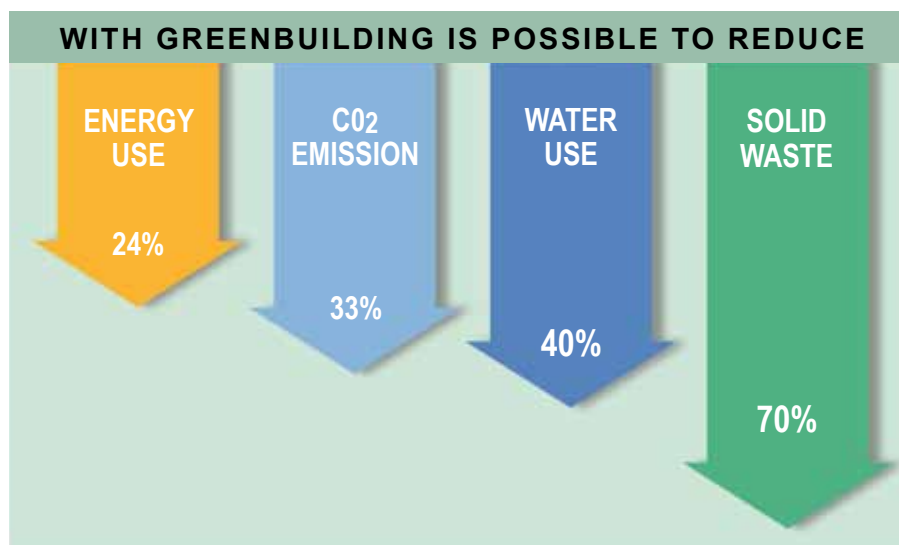
MATERIAL REUSE:



Correct waste management during the production process allows for the reuse of approximately 50.000 kg of insulation material every year for the production of sound absorption panels.

GREEN BUILDING AND THE CERTIFICATION SYSTEMS

Sustainable construction, called in international jargon “Green building” is an innovative approach developed no later than a few decades ago, but which today represents one of the central themes in building on a world wide scale. It is a much broader concept than one of energy efficiency and embraces topics such as water saving, reduction of pollutant emissions, the use of recovered/recycled materials, thermal, acoustic and visual well-being of the occupants, site accessibility and alternative transport systems, sustainable management of the construction site and in general the control and reduction of all environmental impacts of a building.



*“If Nature had been comfortable, mankind would never have invented architecture”
(Oscar Wilde).*

Over the years, numerous certification protocols have been developed on a voluntary basis, with the aim of measuring energy and environmental performance of the buildings by means of a series of indicators which help to assign a score to determine the sustainability of a building.

The first of these certification systems was BREEAM[®], Building Research Establishment Environmental Assessment Method, initiated in 1990 in England and developed by the Building Research Establishment (BRE). A few years later, the LEED[®] standard was launched on the market in the United States, Leadership in Environmental and Energy Design, through the USGBC, the American section of the World Green Building Council, an international organization, created with the aim of promoting sustainable construction issues on a worldwide basis.

Subsequently, numerous other certification systems appeared on the international scene, developed in different countries, such as France, Japan, Germany, Australia and Italy. Adherence to one of these certification protocols entirely guides the construction of a building, through the phases of design, construction, management and maintenance, towards the sustainability objectives established in advance.

LEED & BREEAM

LEED

LEED is a voluntary certification program that can be applied to any type of building (both commercial and residential) and takes into consideration the entire life cycle of the building itself, from design to construction.

The LEED® standard is based on a system of prerequisites and credits, divided into categories or families, based on the thematic area; the prerequisites are mandatory for obtaining the certification; credits are chosen according to the design objectives, and determine the final score obtained by the building, which in turn establishes the level of certification achieved: Certified, Silver, Gold or Platinum.

CERTIFIED (40 - 49 points)	SILVER (50 - 59 points)	GOLD (60 - 79 points)	PLATINUM (80 points and above)

BREEAM

BREEAM is one of the most used environmental evaluation methods in the world for construction, with more than 200,000 certified buildings. BREEAM is a voluntary certification system, which defines the sustainable design, construction and management criteria through pre-established parameters and referring to recognized standards.

The BREEAM standard, Building Research Establishment Environmental Assessment Method, uses recognized assessment methods which are set up according to reference parameters to verify the design, construction and use of the property. The system is based on criteria divided into different categories, from the management of resources to ecology, and include aspects related to use of energy and water, the internal environment (health and well-being), pollution, transport, materials, waste, ecology and management processes.

MANAGEMENT	HEALTH & WELL-BEING	ENERGY	TRANSPORT	WATER
MATERIALS	WASTE	LAND USE & ECOLOGY	POLLUTION	

LEED & BREEAM

BREEAM

The BREEAM environmental protocol addresses a wide range of environmental and sustainability issues and allows investors and planners to guarantee to customers and local administrators the environmental credentials of their buildings.

- It uses a simple and clear scoring system (credits), supported by research based on experience and concrete data.
- It has a positive influence on the project; from the construction to the management of the building when completed.
- Establishes and maintains a valid technical standard through a strict quality control and certification system.

BREEAM aims to reduce the environmental impacts of the whole construction and management of a building, not only by reducing CO₂ emissions, but taking into consideration all areas of sustainability.

LEED AND BREEAM MAPPING

A single product cannot gain the LEED or BREEAM certification; in fact, the term “certification” is not entirely correct since only a complete building can obtain the LEED or BREEAM certification.

However, companies often receive requests in this sense, therefore the correct procedure is to have an analysis made of the construction characteristics, of the performance and of the materials used directly by a specialized technician, who will release a sort of “certification”.

This “certification” is called LEED or BREEAM mapping in technical jargon; Union Foam has mapped their products and can affirm the following:

LEED



EUROBATEX and **EUROBATEX HF** contribute to the obtaining of prerequisites and credits, which arrive at a certain total of points.

BREEAM



EUROBATEX and **EUROBATEX HF** can contribute, together with other materials, to the achievement of credits and, subsequently, for a total of points. Multiplying the points obtained for each credit by the relative weighting percentage, we can obtain the contribution percentage of credits for the certification (the weighting percentage assigned to credits varies according to the characteristics of the project).

*Evaluation forms regarding the contribution to **LEED** and **BREEAM** credits are available on request with a detailed analysis of the requirements and conformaties needed to acquire points.*



advanced elastomeric thermal and acoustic insulation materials

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